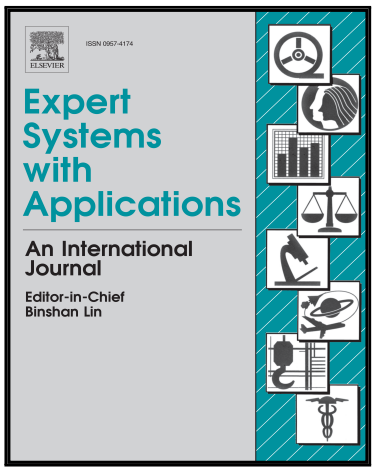
Accepted Manuscript



Micro-Doppler radar classification of humans and animals in an operational environment

W.D Van Eeden, J.P. de Villiers, R.J. Berndt, W.A.J. Nel, E. Blasch

PII: S0957-4174(18)30096-4
DOI: 10.1016/j.eswa.2018.02.019
Reference: ESWA 11823

To appear in: *Expert Systems With Applications*

Received date: 25 October 2017
Revised date: 19 January 2018
Accepted date: 8 February 2018

Please cite this article as: W.D Van Eeden, J.P. de Villiers, R.J. Berndt, W.A.J. Nel, E. Blasch, Micro-Doppler radar classification of humans and animals in an operational environment, *Expert Systems With Applications* (2018), doi: 10.1016/j.eswa.2018.02.019

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- A Gaussian mixture Hidden Markov model is used to classify ground moving targets.
- An improvement in performance over popular state-of-the-art method is demonstrated.
- Targets can be accurately classified at ranges exceeding 1km.
- The model can distinguish between different classes of animals and humans.
- The accuracy ranges from 75

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/6855034

Download Persian Version:

https://daneshyari.com/article/6855034

Daneshyari.com